Hospital and Physician Outcomes Reports

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Questions Addressed

- Can we effectively measure healthcare quality?
- How do legislative mandates guide OSHPD's outcomes reports?
- How do OSHPD reports differ in levels of validity?
- What reports have been produced?
- What are some of the challenges associated with public reporting?

Measuring Healthcare Quality

Robert Brook, Elizabeth McGlynn, and Paul Shekelle (2000) **Defining and Measuring Quality of Care: A Perspective from US Researchers**

"In the last 30 years, research has demonstrated that 1) quality can be measured, 2) that quality varies enormously, 3) that where you go for care affects its quality far more than who you are, and 4) that improving quality of care, while possible, is difficult and painful."

Organizational Factors and Clinical Processes Influence Patient Outcomes

Organizational factors

(e.g., nursing ratios, hospital size)

Clinical Processes
(e.g., tests performed, beta-blockers)

Patient Outcomes

(e.g., 30-day mortality, hospital readmission, complications)

Public Reporting of Healthcare Outcomes

- Two pathways for improvement. Public reporting:
  1. Motivates internal quality improvement
  2. Steers patients and payers towards high performing hospitals or surgeons
- Evidence suggests that public reporting of outcomes is effective

Legislative Mandates for Outcomes Reports

- Healthcare facilities provide data to OSHPD
  - Inpatient discharge records, emergency department, ambulatory surgery
  - Clinical registry data for CABG surgeries
- Reports on hospital quality of care
  - Select outcome (mortality within 30 days for most reports, also complications and readmissions)
  - Calculate risk-adjusted outcome rates
  - Assign quality ratings for hospitals and individual physicians (CABG only)
- Hospitals get preliminary 60 day review (surgeon right to appeal)
- Consult with the OSHPD health policy commission and technical advisory groups

OSHPD Quality Metrics: Varying Levels of Validity

	CCORP Report (CABG surgery)	Traditional Reports (Pneumonia, Heart Attack)	AHRQ Inpatient Mortality Indicators
Type of Data	Clinical Registry	Patient Discharge Data	Patient Discharge Data
Data Quality Checks	Extensive; ongoing changes	Automated; no changes past acceptance	Automated; no changes past acceptance
Medical Chart Audit	Yearly	With initial validation	None
Risk Model Review	Yearly	Infrequent	Periodic by AHRQ
Expert Panel Review	Continuous	With initial validation, TAC	Periodic by AHRQ & National Quality Forum

Outcomes Reporting: Current Focus

Completed Reports (ongoing)	Studies in Validation or Preparation
Coronary Artery Bypass Graft Surgery (6) Intensive Care Outcomes Heart Attack (3) Community-Acquired Pneumonia (3) 8 AHRQ Inpatient Mortality Indicators	Maternal Outcomes Hip Fracture Repair Stroke Outcomes Congestive Heart Failure Abdominal Aortic Aneurysm (AAA) Repair

California Hospital Risk-Adjusted Mortality Rates and Quality Ratings for AHRQ Inpatient Mortality Indicators, 2007

Office of Statewide Health Planning and Development (OSHPD)

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County	Hospital Name	Esophageal Resection % Mortality (# Cases)*	Pancreatic Resection % Mortality (# Cases)	Craniotomy % Mortality (# Cases)	Acute Stroke % Mortality (# Cases)	Gastro-Intestinal Hemorrhage % Mortality (# Cases)	Hip Fracture % Mortality (# Cases)	PTCA** % Mortality (# Cases)	Carotid Endarterectomy % Mortality (# Cases)
STATEWIDE		**6.5 (190)**	**4.6 (623)**	**6.7 (13,132)**	**10.4 (49,915)**	**2.1 (48,691)**	**2.4 (23,700)**	**1.3 (52,152)**	**0.4 (8,132)**
LAKE	REDBUD COMMUNITY HOSPITAL				**39.7 (33) Worse**	4.5 (36)	3.7 (18)		
	SUTTER LAKESIDE HOSPITAL				11.6 (41)	4.5 (68)	1.8 (34)		
LASSEN	BANNER LASSEN MEDICAL CENTER				**35.2 (10) Worse**	0 (20)	0 (6)		
LOS ANGELES	ALHAMBRA HOSPITAL			0 (3)	5.4 (66)	0.6 (103)	0 (35)		
	ANTELOPE VALLEY HOSPITAL			9.4 (29)	8 (336)	2.2 (295)	**5.5 (135) Worse**	1.5 (308)	0 (29)
	BARLOW RESPIRATORY HOSPITAL								
	BELLFLOWER MEDICAL CENTER				0 (16)	0 (27)	0 (8)		
	BEVERLY HOSPITAL			0 (15)	8.8 (189)	2.2 (164)	2.3 (63)	0.5 (106)	0 (24)
	BROTMAN MEDICAL CENTER			3 (70)	8.8 (110)	2.9 (128)	0 (44)	0.7 (92)	2.3 (9)
	CALIFORNIA HOSPITAL MEDICAL CENTER - LOS ANGELES			6.2 (26)	12.1 (243)	2.8 (235)	0 (49)		
	CATALINA ISLAND MEDICAL CENTER								
	CEDARS SINAI MEDICAL CENTER	0 (11)	11.4 (28)	5.9 (524)	11.3 (498)	1 (457)	2 (215)	1.1 (1,009)	0 (113)
	CENTINELA FREEMAN REG MED CTR-MARINA CAMPUS				4.5 (86)	1.3 (103)	1.7 (57)		0 (4)
	CENTINELA HOSPITAL MEDICAL CENTER			**11.4 (73) Worse**	9.3 (518)	1.9 (434)	1 (76)	0.7 (314)	0 (29)

* *% Mortality = Risk-adjusted inpatient mortality rate # Cases = a hospital's total number of patients undergoing this procedure or with this condition*

** *PTCA = Percutaneous Transluminal Coronary Angioplasty*

Note: Agency for Healthcare Research and Quality, Inpatient Quality Indicators, Mortality Indicators, Version 3.2; Patient Discharge Data, OSHPD, 2007

Blank cells indicate that no procedures were performed or conditions treated; If the rating is blank, a hospital's performance is considered 'Not Different' from the state average

Challenges

- Quality of data
  - Validation is effective, but resource intensive
- Outcome choice and timeliness of reports
  - 30-day vs. in-hospital mortality
- Valid risk-adjustment models require expert advice
  - Clinical consulting contracts
  - Technical Advisory Committee meetings
- Perfection vs. Timely Reports

Questions?

- Contact Information

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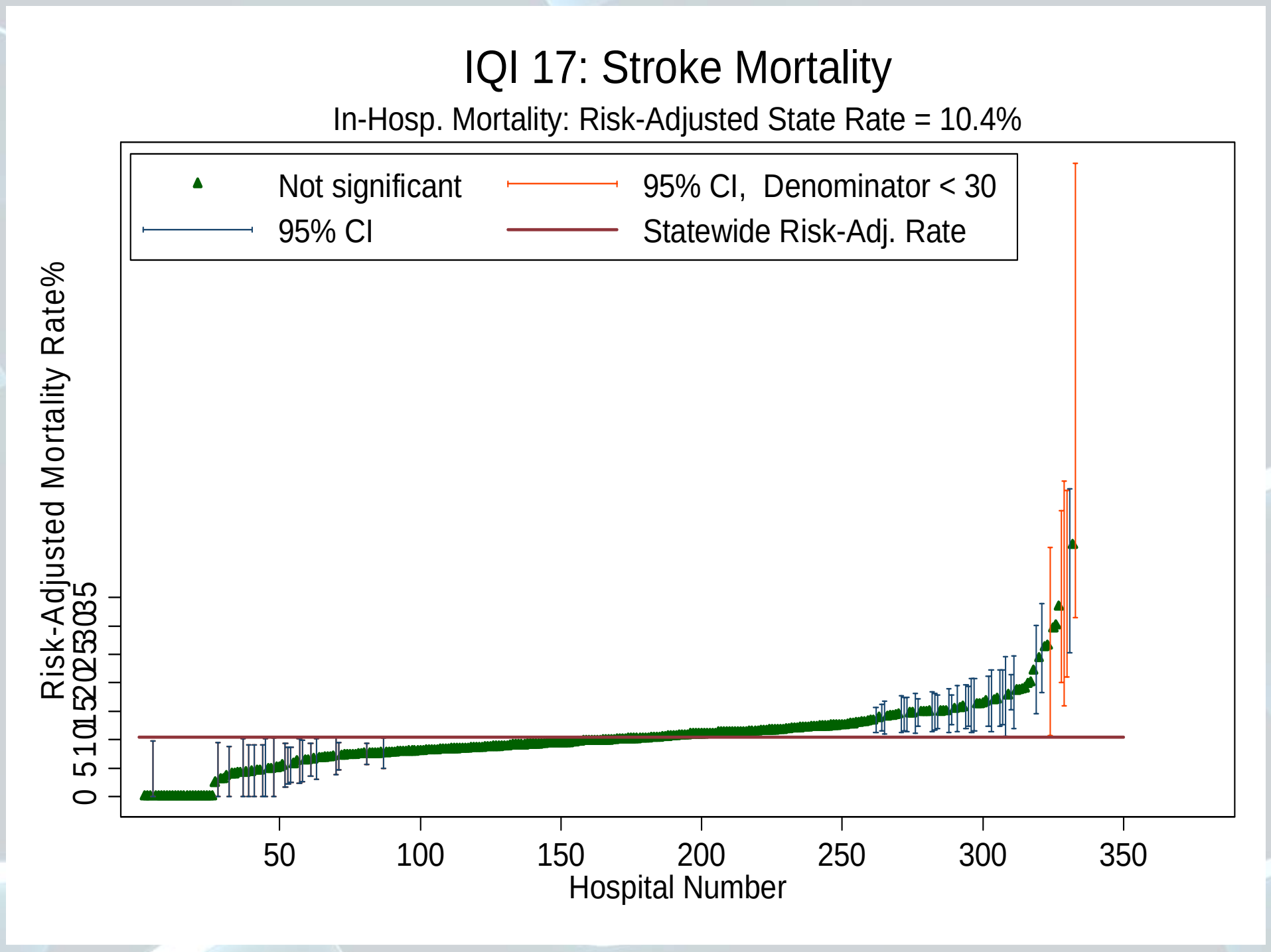
Backup Slides


IQI 17: Stroke Mortality
In-Hosp. Mortality: Risk-Adjusted State Rate = 10.4%
Not significant
95% CI
95% CI, Denominator < 30
Statewide Risk-Adj. Rate
Risk-Adjusted Mortality Rate%
0 5 10 15 20 25 30 35
50
100
150
200
250
300
350
Hospital Number

Data Elements: Final List

- Lab Values
  - **AST**
  - **Potassium**
  - **Sodium**
  - **pH**
  - **PT/INR**
  - **Albumin**
  - **Creatinine**
  - **BUN**
  - **Platelets**
  - **White Blood Cells**
  - **Hematocrit/Hemoglobin**
- Vital Signs
  - **Oxygen Saturation**
  - Pulse
  - Blood Pressure
  - Respiration Rate
  - Temperature
- Operating Physician ID
- Patient Address

Items in bold have been approved for the final list